

AMENDMENTS TO THE CLAIMS

Please enter the claim amendments as indicated in the below list of claims:

Listing of Claims

1-44. (Canceled)

45. (New) A medical treatment apparatus for providing medication to a patient, comprising:
a medical device having a supply of medication and a means for delivering the medication to the patient, a control algorithm coupled to the medical device, a sensor coupled to a patient to receive information from the patient concerning the physiological condition of the patient, the information being transferred from the sensor to the control algorithm, and another sensor that receives environmental information from an environment of the patient, the environmental information being transferred to the control algorithm, wherein the control algorithm is adapted to process the information from at least one of the sensor coupled to the patient and the sensor that receives the environmental information to control the delivery of the medication from the medical device to the patient.

46. (New) The medical treatment apparatus of claim 45, further comprising an input device for adjusting parameters of the control algorithm.

47. (New) A medical apparatus for delivering a treatment to a patient, comprising:
a medical device having a medical treatment, and a controller electrically connected to the medical device, the controller dynamically processing a first signal received from a first sensing device connected to the patient, and a second signal from a second sensing device, the second signal relating to information as to the environment of the patient, the controller developing a feedback control based on a result of processing at least one of the first and second signals to determine whether medication should be delivered from the medical device to the

patient and providing the feedback control to the medical device to control the delivery of the medical treatment to the patient.

48. (New) The medical apparatus of claim 47, further comprising a control algorithm electronically connected to the controller, wherein the control algorithm processes the signals received from the sensing devices, and wherein the control algorithm develops a feedback control based on the result of processing the signals for the delivery of medication to the patient.

49. (New) The medical apparatus of claim 48, wherein the control algorithm for the controller is downloaded to the controller.

50. (New) The medical apparatus of claim 47, wherein the medical device has a supply of medication to be delivered to the patient.

51. (New) The medical apparatus of claim 47, wherein the first signal is automatically obtained from a physiological condition of the patient without intervention from the patient.

52. (New) The medical apparatus of claim 47, wherein the second signal is automatically obtained from the second sensing device without intervention from the patient.

53. (New) The medical apparatus of claim 47, wherein the controller is a component of the medical device.

54. (New) The medical apparatus of claim 47, further comprising an input device coupled to the controller, the input device provided to allow an authorized user to manipulate the control algorithm.

55. (New) The medical apparatus of claim 54, wherein the input device is a remote controller located at a second location distinct from a first location, and wherein the medical device is located at the first location.

56. (New) The medical apparatus of claim 47, wherein the first sensing device comprises a vital signs monitor coupled to the patient, the vital signs monitor obtaining a signal from the patient.

57. (New) The medical apparatus of claim 47, wherein the first sensing device comprises an activity sensor coupled to the patient, the activity sensor obtaining a signal from the patient.

58. (New) The medical apparatus of claim 47, wherein the second sensing device comprises a light sensor coupled to the controller, the light sensor obtaining a signal based on the ambient light.

59. (New) The medical apparatus of claim 47, wherein the second sensing device comprises an environmental sensor coupled to the controller, the environmental sensor obtaining a first signal based on an environmental factor of the environment of the patient and sending a second signal to the controller.

60. (New) A medical treatment administration system for delivering a medical treatment to a patient, comprising:

 a medical device that delivers a medical treatment to a patient, the medical device having a processor to regulate the distribution of medical treatment to the patient over a period of time;

 a first sensor coupled to the processor, the first sensor receiving a signal from the patient concerning the patient's physiological condition and transmitting the signal to the processor; and,

a second sensor coupled to the patient's environment, the second sensor receiving a signal from the patient's environment and transmitting the signal to the processor, the processor receiving the signals from the first and second sensors and processing the signals to regulate the distribution of medical treatment from the medical device.

61. (New) The medical treatment administration system of claim 60, wherein the first sensor is an input device that receives manual input.

62. (New) The medical treatment administration system of claim 61, wherein the patient provides the manual input.

63. (New) The medical treatment administration system of claim 60, wherein the physiological condition is selected from the group consisting of: the patient's heart rate, the patient's body temperature, the patient's activity, the patient's metabolic demand, the patient's cellular metabolism, and the patient's cellular proliferation.

64. (New) The medical treatment administration system of claim 60, wherein the processor has a control algorithm that processes the signal from at least one of the first and second sensors.

65. (New) The medical treatment administration system of claim 60, further comprising an input device for controlling the processor.

66. (New) The medical treatment administration system of claim 60, wherein based on the specific medical treatment to be administered to the patient, the processor processes the signal from one of the first sensor and second sensor.

67. (New) The medical treatment administration system of claim 60, wherein based on the specific medical treatment to be administered to the patient, the processor processes signals from both of the first sensor and second sensor, and wherein the processor regulates the distribution of medical treatment from the medical device based on the cumulative result of the processed signals.

68. (New) The medical treatment administration system of claim 60, wherein the first sensor receives a plurality of signals from the patient concerning the patient's physiological condition and transmits the signals to the processor, and wherein the processor receives the signals, processes the signals and regulates the distribution of medical treatment from the medical device based on the cumulative result of the processed signals.

69. (New) The medical treatment administration system of claim 60, wherein the first sensor includes an activity sensor that monitors the body temperature of the patient and that develops a signal to send to the processor, and a vital signs monitor that monitors the patient's heart rate and that develops a signal to send to the processor to, and wherein based on the specific medical treatment to be administered the processor requests the signal from one of the activity monitor and the vital signs monitor.

70. (New) The medical treatment administration system of claim 64, further comprising a second medical device that delivers a medical treatment to the patient, wherein the control algorithm receives the signal from the first sensor, processes the signal, and regulates the distribution of medical treatment from the second medical device to the patient.

71. (New) The medical treatment administration system of claim 70, wherein the control algorithm for the first medical device is distinct from the control algorithm for the second medical device.

72. (New) A method to provide medical treatment for a patient, comprising the steps of:
 providing a medication treatment device;
 providing a control algorithm;
 providing a first sensor;
 providing a second sensor;
 utilizing the second sensor to measure at least one environmental parameter of the patient's environment and transferring the measured environmental parameter to the control algorithm;
 utilizing the first sensor to measure a physiological condition parameter of the patient, transferring the measured physiological condition parameter to the control algorithm; and,
 entering at least one of the measured physiological condition parameter and the environmental parameter in the control algorithm, developing a result, developing feedback control based on the result from the control algorithm, and manipulating the medication treatment device based on the feedback control to deliver treatment to the patient.

73. (New) The method of providing medical treatment to a patient of claim 72, further comprising:
 providing an input device for the control algorithm, and manipulating the input device to modify the control algorithm.

74. (New) The method of providing medical treatment to a patient of claim 72, wherein the medication treatment device is an infusion pump.